

Amendments to the Drawings

The drawings have been objected to for their failure to show in Figure 9 the flow of data in the system as described in the specification. An arrow has been added to show a flow of data from the add server to the TV distribution head-end. Another arrow has been added to show a flow of data from the TV distribution head-end to the add category prototypes. With these changes it is believed that the structural detail essential for a proper understanding of the disclosed invention is shown in the drawings. A replacement drawings sheet and an annotated drawings sheet for Figure 9 are attached hereto.

Enclosures: Replacement Drawings Sheet for Figure 9

Annotated Sheet Showing Changes to Figure 9

REMARKS

This Amendment is responsive to the Official Action dated July 6, 2006. Claims 1-21 are pending in the patent application.

Rejections of the Claims, In General

In the outstanding Office Action, the Examiner has cited two patents, both issued to Hendricks *et al.* In the following comments, these two patents will be distinguished by showing in parentheses the last three digits of the relevant patent number.

Rejection of Claims 1-3 and 5-7 under 35 U.S.C. 103(a) citing Hendricks et al. (978) in view of Herz et al.

This rejection includes independent Claim 1. The remainder of the rejected claims are dependent upon Claim 1 and therefore recite the patentable limitations of that claim. Claim 1 has been amended to more clearly recite a television rating system including a server side system and a client side system. A clustering engine is included in the server side system for receiving and processing television viewing data and for generating user profiles targeting user category groups. Separate from this server side system is a client side system which is adapted to classify each television user into one of the user category groups. A contextual behavior profiling system derives profiling information from the user's viewing behavior and includes a behavioral model database for storing profiling information in the client side system. As suggested by the Examiner, Hendricks (978) teaches a client-side system that is adapted to classify a television user into at least one

advertising category group. Hendricks et al (978) does not teach a server-side system let alone a server-side system including a clustering engine for receiving and processing data to generate user profiles targeting a user. For this teaching of a clustering engine, the Examiner relies on Herz et al.

Herz et al describe a system for scheduling the receipt of desired television data based on customer profiles. In this system, actual profiles of the television data are compared with recipient profiles in an agreement matrix period. This is also a client side system. In the text associated with Figure 4, referred to by the Examiner, it is noted that "...a customer profile system in accordance with the invention calculates the agreement matrix at the customer's set-top multimedia terminal...." (Col. 41, line 55). These multimedia terminals 412 are located, "...in the homes of the head-end's customers." (Col. 42, line 7) It follows that these terminals are part of a client side system not a server-side system as recited in Claim 1.

From this review of the cited patents, it is clear that any modification of Hendricks et al (978) in accordance with Herz et al would not produce the separate server side system and client side system as recited in Claim 1. It should also be noted that there is no teaching in either of these patents that the inventions disclosed by Hendricks et al (978) and Herz et al could be combined to any advantage. This important element, the teaching of the combination from within the prior art, is clearly absent in this rejection. For at least these two reasons, it is suggested that Applicant's invention as set

forth in Claim 1 clearly recites a concept which is neither disclosed nor contemplated by the cited art. Accordingly Claim 1, as amended, should be allowable.

Referring to Claim 2, it is noted that the clustering engine is recited to reside in a central computer system at the head-end in the server-side system. This is not the case with the system of Herz et al where anything analogous to a clustering engine is located in the client side system, "...in the homes of the head-ends customers." (Col. 42, line 6). Accordingly, Claim 2 should be allowable not only for its recitation of the distinguishing limitations in Claim 1, but also for these additional recitations in Claim 2.

Claims 2-3 and 5-7 all recite the distinguishing limitations of Claim 1 and accordingly should also be allowable. In Claim 3, the clustering engine recited carries all of the distinguishing limitations of Claim 1 and Claim 2 as noted above.

Claim 5 recites an advertisement manager residing at the server-side system and a behavioral model database in the client side system. In the rejection of Claim 5, the Examiner refers to the network controller 214 in Figure 1 as being analogous to an advertisement manager. However, there is no showing or mention of a behavioral model database in a client side system. Accordingly, any combination including Hendricks et al (978) would fail to produce an invention as recited in Claim 5.

Claim 6 recites an advertisement manager having the limitations recited in Claims 5 and 1. Neither Hendricks et al (978) nor Herz et al, either individually or in combination, include an advertisement manager having these limitations.

Referring to Claim 7, it will be noted that the television ratings system is recited to further comprise targeting agents and presentation agents disposed at the client side system. Such agents are neither disclosed nor contemplated by the recited references already distinguished in accordance with Claims 1 and 5.

From the foregoing discussion of this rejection, it is clear that the cited references, whether considered individually or in combination, fail to disclose a concept as claimed by Applicant. It follows that, at the time of the invention, it would not have been obvious to one of ordinary skill in the art to conceive of the concept disclosed and claimed by Applicant.

Rejection of Claim 4 under 35 U.S.C. 103(a) citing Hendricks (978) in view of Herz et al and further in view of Eldering.

Claim 4 recites the distinguishing limitations of Claim 1 and Claim 2 and further recites programming of the clustering engine to generalize user profiles into a representative aggregation. As noted by the Examiner, Hendricks et al (978) and Herz et al fail to teach such a system. To meet these recitations of Claim 4, the Examiner recites yet a third patent to Eldering suggesting that this combination of three patents would be

obvious to one of ordinary skill in the art. It has already been shown that the patents of Hendricks et al (978) and Herz et al both fail to suggest or contemplate this combination. Eldering similarly lacks this important feature. There is no suggestion in Eldering that any of his teachings might be applied to those of Hendricks et al (978) or Herz et al to any advantage.

In his rejection of Claim 4, the Examiner refers to paragraphs 0033 and 0034 of Eldering. However, these paragraphs do not disclose an aggregation that is representative of both 1) all dimensions most strongly in common for the targeted group, and 2) all dimensions most unique across several of the targeted groups. With these recitations in Claim 4, it is clear that Eldering does not meet the requirements of Claim 4 either individually or in combination with Hendricks et al (978) or Herz et al. Accordingly, at the time of the invention it would not have been obvious to one of ordinary skill in the art to modify the combined systems of Hendricks et al (978) or Herz et al using the profile system of Eldering.

Rejections of Claims 8-10 based on 35 U.S.C. 103(a) citing Hendricks et al (785) in view of Alexander et al.

This rejection includes independent Claim 8 and Claims 9 and 10 which are dependent on Claim 8.

Claim 8 is amended herein and recites an interactive display system having a head-end side for distributing program content that has been pruned for a user category. On a client side, this pruned program content is selectively displayed by a user. A preference engine determines a preferred program content for the user. A monitoring device receiving the pruned program content is disposed at the client side for recording contextual transition behaviors profiling the user. The user monitoring device builds a user profile at the client side, and a program distributing device at the head-end side provides program content in accordance with the user profile.

Hendricks et al (785) disclose a system for suggesting programs offered on a program delivery system. However, there is no contemplation of such a system used with respect to a distributing program content that has already been pruned for a user category.

The Examiner suggests that this defect is cured by the teachings of Alexander et al. Although it is suggested that Alexander et al teach a device in the nature of a cable box, this still fails to cure the defect in Hendricks et al. Even in view of Alexander et al, Hendricks et al (785) fail to teach a device for providing to one or more users the program content in accordance with a user's demographic information and a contextual transition behavior profile. It should also be noted that in order to rely on this combination of references, the prior art must include a teaching that would suggest or invite this combination. That teaching is not shown by the Examiner to be present in either of these references nor in any of the other art cited by the Examiner. Accordingly, at the time of Applicant's invention, the concept would not have been obvious to a person

of ordinary skill in the art in view of either Hendricks et al (785) or Alexander et al, or any combination thereof.

Claim 9 recites the distinguishing limitations of Claim 8 and further recites that the user monitoring devices models the user's behavioral interaction with advertising program content and with entertainment program content. However, there is no program distributing device at the head-end side which provides to the user the program content in accordance with this type of user profile.

Claim 10 includes all of the distinguishing limitations of Claim 8 and further recites a program distributing device that is connected to receive from the head-end, metadata information describing both advertising and entertainment program content. This metadata information is combined with preferences and contextual transition behaviors to build a relational knowledge base with associations among behavior demographics and program content preferences. Although Alexander et al teach the customizing of programs in an EPG, they fail to do so in the manner recited in Claim 10, particularly in an interactive display system such as that recited in Claim 8.

Rejection of Claim 11 under 35 U.S.C 103 (a) citing Hendricks et al (785) in view of Alexander et al and further in view of Bedard.

Claim 11 recites all of the distinguishing limitations of Claim 8 including those relating to a head-end side distribution of program content that has been pruned for a user

category. This defect is not cured by any of the teachings of Bedard. Claim 11 further recites a user maintaining device that is programmed to model patterns of usage behaviors and to produce a behavioral database having a confidence value. Bedard is recited for its teachings of a behavior database having a confidence value for each entry in the database. Even though Bedard's teachings have some relationship to the additional recitations in Claim 10, there is no teaching that her concept can be embodied in an interactive display system as further recited in Claim 8.

Rejections of Claims 12, 13, 15-18 and 21 under 35 U.S.C. (103)(a) over Hendricks et al (978) in view of Alexander et al and further in view of Hendricks et al (785).

This rejection includes independent Claim 12 and claims dependent thereon. Claim 12 recites a program content delivery system having a head-end side and a client side. A system for targeting program delivery comprises a central data system at the head-end side, which uses information selected from a recited group. A demographic cluster knowledge based acquirer is disposed on the client side and receives from the client side behavior data of the user. This acquirer outputs a knowledge base in the form of a transition matrix with weight sets. The matrix predicts a demographic group for the user, which is used by a program content generating module to provide streams of program content.

The primary reference relied on by the Examiner in rejecting Claim 12 is Hendricks et al (978). It is suggested by the Examiner that Hendricks et al (978)

discloses a demographic cluster knowledge based acquirer, which receives behavioral data of the user. Importantly, this acquirer of Hendricks et al (978) is not disposed on the client side as recited in Claim 12. This is of particular importance to the present invention as it permits the client information to be collected, manipulated and stored on the client side rather than on the server side where it would require a vast amount of storage to accommodate all of the users in a region.

It is noted by the Examiner that Hendricks et al (978) fails to teach viewing data selected from the group consisting of watch start time, watch duration, and watch channel, and an electronic program guide with metadata describing program content. In order to meet these recitations in Claim 12, the Examiner cites Alexander for his disclosure of data selected from the group consisting of watch start time, watch duration and watch channel.

It is noted by the Examiner that Hendricks et al (978) and Alexander et al fail to teach receiving an electronic program guide with metadata describing program content. To meet this recitation in Claim 12, the Examiner cites Hendricks et al (785).

Importantly, none of these three references discloses or contemplates, either individually or in combination, a demographic cluster knowledge based acquirer, which is disposed on the client side and receives from the client's side behavioral data of the user. This is important to the present invention and is clearly recited in Claim 12.

Accordingly, at the time of the invention it would not have been obvious to a person of ordinary skill in the art to modify the combined systems of Hendricks et al (978) and Alexander et al using the teachings of Hendricks et al (785) to achieve Applicant's invention as recited in Claim 12.

Claim 13 is dependent on Claim 12 and recites the distinguishing limitations of that claim. Claim 13 further recites a real time feedback link for delivering to the central data system real time information with click stream data concerning the viewing behavior of the user. In order to meet these additional recitations of Claim 13, the Examiner again refers to Hendricks et al (978) for his teaching of a real time feedback link. Notwithstanding this teaching, Hendricks et al (978) fails to disclose a real time feedback link in a system which includes a demographic cluster knowledge based acquirer disposed on the client side. This additional recitation should also render Claim 13 allowable.

Claim 15 is dependent on Claim 12 and also recites the distinguishing limitations of that claim. In addition, Claim 15 recites that the demographic cluster knowledge based acquirer and the program content generating module are software modules adapted to be stored on a machine-readable medium in the form of a plurality of processor-executable instructions. In order to meet these additional recitations in Claim 15, the Examiner again refers to Hendricks et al (978) for their disclosure of a network controller in a database. Notwithstanding this teaching, Hendricks et al (978), whether taken individually or in combination with any other cited art, fails to teach a demographic

cluster knowledge based acquirer that is disposed on the client side. This additional recitation should also render Claim 15 allowable.

Claim 16 is dependent on Claim 12 and therefore recites the distinguishing limitations of that claim. In addition, Claim 16 recites the program content delivery system wherein the demographic cluster knowledge based acquirer generates demographic cluster information of the user in terms of statistical state machine transition models. In order to meet these further limitations recited in Claim 16, the Examiner relies on Hendricks et al (978) for his teaching of correlation algorithms to modify matrices which include demographic information. Notwithstanding this teaching, Hendricks et al (978), whether considered individually or in combination with any of the other cited art, fails to teach a demographic cluster knowledge based acquirer that is disposed on the client's side of the delivery system. For this additional reason, Claim 16 should be allowable.

Claim 17 is dependent on Claims 12 and 16 and further recites the distinguishing limitations of those claims. Claim 17 further recites the program content delivery system wherein the state machines transition models are defined in a transition matrix at the head-end side, and the transition matrix contains information of program transitions initiated by the viewer at the client side. In order to meet these limitations, the Examiner again relies on Hendricks et al (978) for his teachings of a transition matrix using correlation algorithms to modify matrices. Notwithstanding this teaching, Hendricks et al (978), whether considered individually or in combination with any of the other cited art,

fails to disclose a demographic cluster knowledge based acquirer, which is disposed on the client side of the delivery system. Accordingly, Claim 17 should be allowable.

Claim 18 is dependent on Claim 12 and recites the distinguishing limitations of that claim. In addition, Claim 18 recites the program content delivery system wherein the transition matrix is one of at least two concurrent transition matrices including a channel matrix and a genre matrix. In order to meet these additional limitations of Claim 18, the Examiner relies on Hendricks et al (978) for his teaching of concurrent transition matrices including a genre matrix. However, the passage referred to by the Examiner in the specification of Hendricks et al (978) does not mention a channel matrix as recited in Claim 18. Furthermore, Hendricks et al (978), whether considered individually or in combination with any of the other cited art, fails to teach a demographic cluster knowledge based acquirer, which is disposed on the client side.

Claim 21 is dependent on Claim 12 and therefore recites the distinguishing limitations of that claim. In addition, Claim 21 recites a program content delivery system wherein the demographic cluster knowledge based acquirer is configured to define a double random process with a plurality of dimensions, and to determine parallel statistical state machine transition events in at least two of three state categories including channel, genre, and title of the program content. In order to meet these additional recitations in Claim 21, the Examiner refers to Hendricks et al (978) for his teaching of a knowledge based acquirer. Alexander is cited for his teachings regarding the determination of parallel statistical state machine transition events in at least two of three

state categories. Notwithstanding the teachings of Hendricks et al (978) and Alexander et al, the combination fails to disclose a demographic cluster knowledge based acquirer that is disposed on the client side of the deliver system. Accordingly, Claim 21 should be allowable.

Rejection of Claims 14 and 19 under 35 U.S.C. 103(a) citing Hendricks et al (978) in view of Alexander et al, further in view of Hendricks et al (785), and further in view of Herz et al.

Claim 14 is dependent on Claim 12 and therefore recites the distinguishing limitations of that claim. In addition, Claim 14 recites a program content delivery system wherein the demographic cluster knowledge based acquirer is based on a hidden Markov model. In order to meet this additional recitation in Claim 14, the Examiner relies on Hendricks et al (978), Alexander et al and Hendricks et al (785) for their teachings of a demographic cluster knowledge based acquirer. Herz et al is relied on for their disclosure of an acquirer based on a hidden Markov model. Notwithstanding this combination of four cited references, the Examiner has failed to show in the prior art any disclosure or contemplation of a demographic cluster knowledge based acquirer that is disposed on the client side of the delivery system. Accordingly, Claim 14 should be allowable.

Claim 19 is dependent on Claim 12 and therefore recites the distinguishing limitations of that claim. Claim 19 further recites a program content delivery system wherein the transition matrix is a two-dimensional matrix with transitions from television

channels in normal form to television channels in temporal form. In order to meet these additional limitations recited in Claim 19, the Examiner cites Hendricks et al (978) Alexander et al and Hendricks et al (785) for their teachings of a transition matrix. Herz et al is relied on for their disclosure of a transition matrix that is a two-dimensional matrix with transitions from television channels in normal form to television channels in temporal form. Notwithstanding this citation of four elements of the prior art, this combination of references fails to disclose a demographic cluster knowledge based acquirer that is disposed on the client side of the delivery system. Accordingly, Claim 19 should be allowable.

Rejection of Claim 20 under 35 U.S.C. 103(a) citing Hendricks et al (978) in view of Alexander et al, further in view of Hendricks et al (785), further in view of Herz, and further in view of Rabiner et al.

Claim 20 is dependent on Claims 14 and 12 and therefore recites the distinguishing limitations of those claims. In addition, Claim 20 recites a program delivery system wherein the demographic cluster knowledge based acquirer is configured to parameterize the users behavior with a double random pseudo hidden Markov process. The acquirer is further configured to define a low-level statistical state machine modeling a behavior cluster and a top-level statistical state machine with active behavioral clusters and an interaction among the active behavior clusters.

In order to meet these additional recitations in Claim 20, the Examiner cites the four elements of prior art noted above. More specifically, the Examiner relies on Hendricks et al (978) for their teaching of a demographic cluster knowledge based acquirer that is configured to parameterize the user's behavior with a double pseudo hidden process. Hendricks et al (978) is also relied on for their disclosure of a low-level statistical state machine modeling a behavioral cluster and a top-level statistical state machine with interaction between active behavioral clusters. Hendricks et al (785) is cited for their teaching of a Markov process. Notwithstanding the teachings in this combination of four references, it is noted by the Examiner that the cited combination fails to teach random processing. In order to meet this recitation in Claim 20, the Examiner relies on Rabiner et al. for their teaching of random processing. Notwithstanding this combination of five references, the Examiner has failed to show in the prior art any contemplation of a demographic cluster knowledge based acquirer, which is disposed on the client side of the delivery system. Accordingly, Claim 20 should be allowable.

Rejection of Claims 12, 13, 15-18 and 21 under 35 U.S.C. 103(a) citing Hendricks et al (978) in view of Alexander and further in view of Hendricks et al (785)

This rejection includes independent claim 12; the remaining rejected claims are dependent on claim 12. Independent claim 12 recites a program content delivery system having a head end side and a client side. A system for targeting program delivery comprises a central data system at the head end side, which use information selected from a recited group. A demographic cluster knowledge based acquirer is disposed on the

client's side and recedes from the client's side behavior data of the user. This acquirer outputs a knowledge base in the form of a transition matrix with weight sets. This matrix predicts a demographic group for the user, which is used by program content generating module to provide streams of program content.

The primary reference relied on by the Examiner in rejecting Claim 12 is Hendricks et al (978). It is suggested by the Examiner that Hendricks et al (978) discloses a demographic cluster knowledge based acquirer, which receives behavioral data of the user. Importantly, this acquirer of Hendricks et al (978) is not disposed on the client's side as recited in Claim 12. This is of particular importance to the present invention as it permits the client information to be collected, manipulated and stored on the client's side rather than on the server side where it would require a vast amount of storage to accommodate all users in a region.

It is noted by the Examiner that Hendricks et al (978) fails to teach viewing data selected from the group consisting of watch start time, watch duration, and watch channel, and in electronic program guide with metadata describing a program content. In order to meet these recitations in Claim 12, the Examiner cites Alexander for his disclosure of data selected from the group consisting of watch start time, watch duration and watch channel.

It is noted by the Examiner that Hendricks et al (978) and Alexander failed to teach receiving an electronic program guide with metadata describing a program content.

To meet this recitation in Claim 12, the Examiner cites Hendricks et al (785) for the teaching of receiving an electronic program guide with metadata describing program content.

Importantly, none of these three references discloses or contemplates either individually or in combination a demographic cluster knowledge based acquirer, which is disposed on the client's side and received from the client's side behavioral data of the user. This is important to the present invention and is clearly recited in Claim 12. Accordingly, at the time of the invention it would not have been obvious to a person of ordinary skill in the art to modify the combined systems of Hendricks et al (978) and Alexander using the teachings of Hendricks et al (785) to achieve Applicant's invention as recited in Claim 12.

Claim 13 is dependent on Claim 12 and recites its distinguishing limitations of that claim. Claim 13 further recites a real time feedback link for delivering to the central data system real time information with click stream data concerning the viewing behavior of the user. In order to meet these additional recitations, the Examiner again refers to Hendricks et al (978) for his teaching of a real time feedback link. Notwithstanding this teaching, Hendricks et al fails to disclose a real time feedback link in a system, which includes a demographic cluster knowledge based acquirer disposed on the client's side. Claim 13 should be allowable.

Claim 15 is dependent on Claim 12 and also recites the distinguishing limitations of that claim. In addition, Claim 15 recites that the demographic cluster knowledge based acquirer and the program content generating module are software modules adapted to be stored on a machine-readable medium in the form of a plurality of processor-executable instructions. In order to meet these additional recitations in Claim 15, the Examiner again refers to Hendricks et al (978) for his disclosure of a network controller 214 in database 320. Notwithstanding this teaching, Hendricks et al (978), either individually or in combination with any other cited art, fails to teach a demographic cluster knowledge based acquirer, which is disposed on the client side. This recitation should render Claim 15 allowable.

Claim 16 is dependent on Claim 12 and therefore recites the distinguishing limitations of that claim. In addition, Claim 16 recites the program content delivery system where in the demographic cluster knowledge based acquirer generates demographic cluster information of the user in terms of statistical state machine transition models. In order to meet these further limitations recited in Claim 16, the Examiner relies on Hendricks et al (978) for his teaching of correlation algorithms to modify matrices, which include demographic information. Notwithstanding this teaching, Hendricks et al (978), whether considered individually or in combination with any of the other cited art, fails to teach a demographic cluster knowledge based acquirer, which is disposed on the client's side of the delivery system. Accordingly, Claim 16 should be allowable.

Claim 17 is dependent on Claims 12 and 16 and further recites the distinguishing limitations of those claims. Claim 17 further recites the program content delivery system wherein the state machines transition models are defined in the transition matrix at the head end side and the transition matrix contains information of program transitions initiated by the viewer at the client's side. In order to meet these distinguishing limitations, the Examiner again relies on Hendricks et al (978) for his teachings of a transition matrix using correlation algorithms to modify matrices. Notwithstanding this teaching, Hendricks et al (978), whether considered individually or in combination with any of the other cited art fails to disclose a demographic cluster knowledge based acquirer, which is disposed on the client side of the delivery system. Accordingly, Claim 17 should be allowable.

Claim 18 is dependent on Claim 12 and recites the distinguishing limitations of that claim. In addition, Claim 18 recites the program content delivery system wherein the transition matrix is one of at least two concurrent transition matrices including a channel matrix and a genre matrix. In order to meet these additional limitations of Claim 18, the Examiner relies on Hendricks et al (978) for his teaching of concurrent transition matrices including a genre matrix. However, the passage referred to by the Examiner does not mention the channel matrix recited in Claim 18. Furthermore, Hendricks et al (978) whether considered individually or in combination with any of the other cited art, fails to teach a demographic cluster knowledge based acquirer, which is disposed on the client's side.

Claim 21 is dependent on Claim 12 and therefore recites the distinguishing limitations of that claim. In addition, Claim 21 recites the program content delivery system wherein the demographic cluster knowledge based acquirer is configured to define a double random process with a plurality of dimensions, and to determine a parallel statistical state machine transition events in at least two of three state categories including channel, genre, and title of the program content. In order to meet these additional recitations in Claim 21, the Examiner refers to Hendricks et al (978) for his teaching of a knowledge based acquirer. Alexander is cited for his teachings regarding the determination of parallel statistical state machine transition events in at least two of three state categories. Notwithstanding these teachings of Hendricks et al (978) and Alexander, the combination fails to disclose a demographic cluster knowledge based acquirer, which is disposed on the client's side of the deliver system. Accordingly, Claim 21 should be allowable.

Rejection of Claims 14 and 19 under 35 U.S.C. 103(a) citing Hendricks et al (978) in view of Alexander, in further in view of Hendricks et al (785), and further in view of Herz et al.

Claim 14 is dependent on Claim 12 and therefore recites the distinguishing limitations of that claim. In addition, Claim 14 recites a program content delivery system wherein the demographic cluster knowledge based acquirer is based on a hidden Markov model. In order to meet this additional recitation in Claim 14, the Examiner relies on Hendricks et al (978), Alexander and Hendricks et al (785) for their teaching of a

demographic cluster knowledge based acquirer. Herz et al is relied on for his disclosure of an acquirer based on a hidden Markov model. Notwithstanding this combination of four cited references, the Examiner has failed to show in the prior art any disclosure or contemplation of a demographic cluster knowledge based acquirer, which is disposed on the client's side of the delivery system. Accordingly, Claim 14 should be allowable.

Claim 19 is dependent on Claim 12 and therefore recites the distinguishing limitations of that claim. Claim 19 further recites a program content delivery system wherein the transition matrix is a two-dimensional matrix with transitions from television channels in normal form to television channels in temporal form. In order to meet these additional limitations recited in Claim 19, the Examiner cites Hendricks et al (978) Alexander and Hendricks et al (785) for their teaching of a transition matrix. Herz et al is relied on for his disclosure of a transition matrix that is a two-dimensional matrix with transitions from television channels in normal form to television channels in temporal form. Notwithstanding this citation of four elements of the prior art, the combination fails to disclose a demographic cluster knowledge based acquirer, which is disposed on the client's side of the delivery system. Accordingly, Claim 19 should be allowable.

Rejection of Claim 20 under 35 U.S.C. 103(a) citing Hendricks et al (978) in view of Alexander, further in view of Hendricks et al (785), further in view of Herz et al, and further in view of Rabiner et al.

Claim 20 is dependent on Claims 14 and 12 and therefore recites the distinguishing limitations of those claims. In addition, Claim 20 recites a program delivery system wherein the demographic cluster knowledge based acquirer is configured to parameterize the users behavior with a double random pseudo hidden Markov process, and to define a low-level statistical state machine modeling a behavior cluster and a top-level statistical state machine with active behavioral clusters and an interaction among the active behavior clusters. In route to meet these additional recitations in Claim 20, the Examiner recites the four elements of prior art noted above. More specifically, the Examiner relies on Hendricks et al (978) for his teaching of a demographic cluster knowledge based acquirer, which is configured to parameterize the user's behavior with a double pseudo hidden process. Hendricks et al (978) is also relied on for his disclosure of a low-level statistical state machine modeling a behavioral cluster and a top-level statistical state machine with interaction between active behavioral clusters. Hendricks et al is cited for his teaching of a Markov process. Notwithstanding this combination of four references, it is noted by the Examiner that the combination fails to teach random processing. For this recitation in Claim 20 the Examiner relies on Rabiner *et al.* for their teaching of random processing. Notwithstanding this combination of five references, the Examiner has failed to show in the prior art any contemplation of a demographic cluster knowledge based acquirer, which is disposed on the client's side of the delivery system. Accordingly, Claim 20 should be allowable.

CONCLUSIONS

An important aspect of the present invention relates to the location of the demographic cluster knowledge based acquirer in the program content delivery system. As shown by numerous pieces of the cited art knowledge based acquirer's have been located on the server side of the delivery system. At this location, the acquirer's are required to receive, manipulate and store demographic information for all of the users in a region. This calls for massive storage and manipulation hardware on the server side. Included in the teachings of applicant is a program content delivery system wherein the demographic cluster knowledge based acquirer is disposed on the client's side. In this location, each acquirer is required to recede and store that demographic and preference information associated with the users in a single household. The requirement of data storage and manipulation hardware on the server side is greatly reduced. In addition, the privacy of this user data is maintained closer to the user.

It is noted that the Examiner's rejections call for combinations of as many as five separate pieces of prior art. In order to support these combinations of prior art, there must be a teaching in the prior art that would encourage this combination of references. Where the referenced combination includes several pieces of prior art, the required teaching of combination, it is highly suspect. The Examiner's suggestion of combination can not be relied on for this purpose. Rather, it is the applicant's conception and disclosure of the inventive combination, which is to be rewarded.

Many of the dependent claims have been separately rejected on the cited art. It should be noted that these dependent claims should be allowable both for their dependency on novel base claims and also for their recitation of novel sub-features.

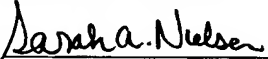
Given the present amendments to the claims and the foregoing remarks distinguishing the cited art, the Examiner's reconsideration and allowance of the application is earnestly requested.

Please direct all correspondence to **Myers, Dawes Andras & Sherman, LLP**,
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additional copy of this page is enclosed for that purpose.

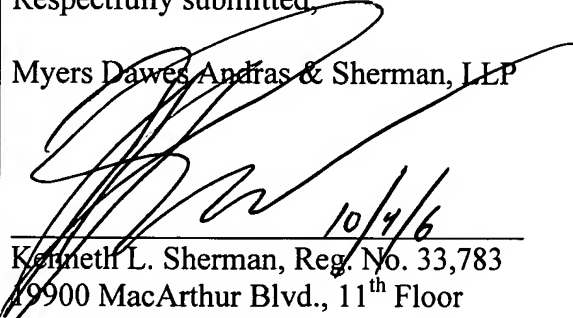
Attachment(s): Replacement Drawings Sheet for Figure 9

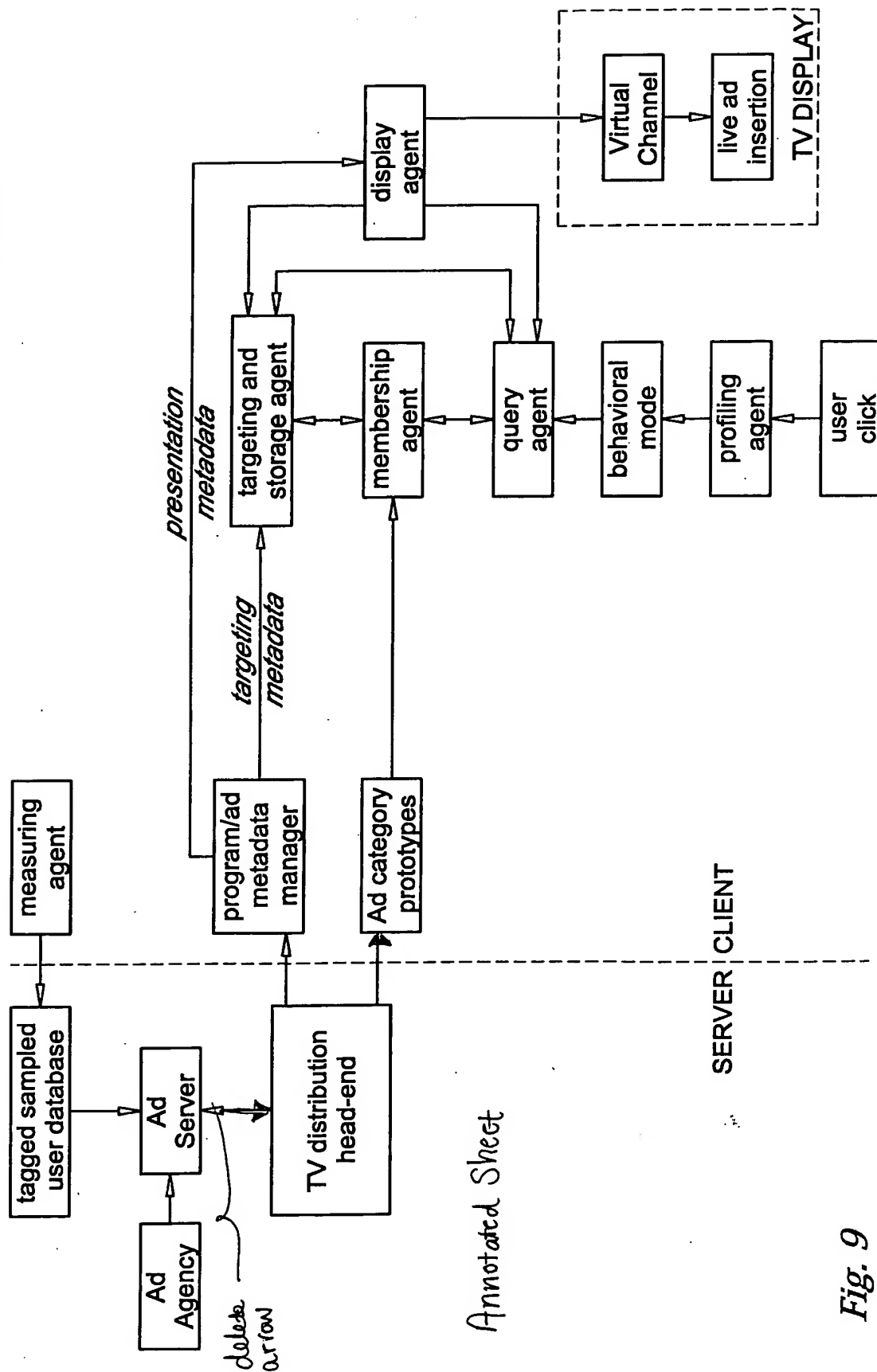
Annotated Drawings Sheet showing changes for Figure 9

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| <p align="center"><u>Certificate of Mailing</u></p> <p>I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: MS Amendment Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on: October <u>4</u>, 2006.</p> <p>By: Sarah A. Nielsen  _____ Signature</p> |
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Respectfully submitted,

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Annotated Sheet

Fig. 9

